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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	F	ATTORNEY'S DOCKET NO.
08/690,968	08/01/96	BARRENS		

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ART UNIT PAPER NUMBER

06/30/97

DATE MAILED:

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

**Office Action Summary**Application No.  
**08/690,968**Applicant(s)  
**Barreras et al.**Examiner  
**Ken Schaetzle**Group Art Unit  
**3305**

- ☐ Responsive to communication(s) filed on \_\_\_\_\_
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

**Disposition of Claims**

- ☒ Claim(s) 1-20 is/are pending in the application.
- Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 1-20 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

**Application Papers**

- ☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. § 119**

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been received.
- ☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.
- ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

- ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

**Attachment(s)**

- ☒ Notice of References Cited, PTO-892
- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 4
- ☐ Interview Summary, PTO-413
- ☒ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the function of the second control means must be recited.

In claim 3, for consistency purposes, the word "transmission" should be replaced by the word "transmitting." Also the phrase "constructed and arranged to" is vague. It is not clear if the applicants are attempting to set forth additional structure to support the functional language following thereafter, or whether such language is simply a statement of intended use for the transmitting unit. This matter must be addressed not only in claim 3, but anywhere such language appears.

In claim 6, use of the word "namely" infers that the device may operate in a mode other than one of the three listed, thus making the claim vague. It is also not entirely clear if the applicants are intending to say that the mode selection means has all three modes available for selection, or if only one of the three modes is available. The examiner will assume the former. It is suggested that the word "or" on line 4 be changed to the word "and" to make this feature clear. Furthermore, it is necessary to define the modes of operation. It is not clear, for example, if the "combination" mode means a combination of "RF only" mode and "battery only" mode, or if it pertains to neither. The examiner will again assume the former when judging the merits of the claim relative to the prior art.

In claim 7, the rectifier must be positively recited (note also claim 9). Also, it would appear that a means for determining the proximity of the transmitting unit to the receiving unit is necessary to support the assertion on lines 5 and 6 of the claim.

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In claim 10, the recitation "...one or more of various parameters which include..." is vague. It is not clear if the applicants are intending to limit the parameters to at least one of the three listed, or if such wording is to be inclusive of other undefined parameters not necessarily included in the list. The examiner suggests replacing the wording in question with the recitation "...one or more of the following parameters..." if the former situation is the case.

In claim 11, there is no structural support for the assertion that a fully charged power source can be sensed.

In claims 12 and 13, the reference to "control means" is indefinite as it is not clear if the applicants are referring to the first or second control means.

The dependency of claim 14 is obviously in error. The examiner will assume dependency upon claim 13 in any rejection on the merits. Correction is required.

Regarding claim 19, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d). The word "dependent" is also misspelled.

In claim 20, the reference to a "source" lacks antecedent basis. To be consistent with claim 19, the applicants should replace the word "source" with the word "supply."

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3, 5, 10, 12, 15, 17, 19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Schulman (Pat. No. 3,942,535).

Claims 1, 3, 12, 15, 17, 19 and 20 are clearly anticipated.

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Regarding claim 5, the device of Schulman is constructed and can be arranged to supply power at a "fast" rate or a "trickle" rate simply depending on its location with respect to the receiving unit. In any event, since all transmitting units must fall into at least one of the two categories listed (i.e., if it is not a high energy transmitter than it must be a low to medium energy transmitter), the language of claim 5, and more specifically the use of the word "or" on line 4, fails to saliently distinguish over the prior art.

Regarding claim 10, the examiner considers the device of Schulman to control the level of RF energy transfer from the transmitting unit to the receiving unit relative to at least the proximity of the transmitting unit to the receiving unit.

*Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schulman (Pat. No. 3,942,535) in view of Kelly et al. (Pat. No. 4,041,955).

Regarding claim 2, while Schulman do not explicitly refer to the use of a titanium housing, the use of such housings to protect both the circuitry contained therein and the patient containing the device, are old in the art. Titanium is a well-known biocompatible material and finds extensive use in implantable medical systems. Kelly et al., for example, teach that such material may be employed in the construction of externally rechargeable implantable medical devices similar to those discussed by Schulman. Kelly et al. disclose a particular titanium housing having excellent integrity and RF energy transmission characteristics. Furthermore, since the device of Schulman operates well-within the 10Hz to 500kHz range specified by the applicant (see col. 3, line 69 of Schulman and also claim 3 of the present invention), use of such

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a housing would pose no problem to the proper transmission of RF energy. Any artisan desiring to reap the benefits discussed by Kelly et al. would have seen the obviousness of adopting such a housing in the system of Schulman.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schulman (Pat. No. 3,942,535) in view of Jeutter et al. (Pat. No. 5,314,457).

Regarding claim 4, Schulman does not discuss the use of a temperature sensor. Jeutter et al., however, discuss the use of such means in a related device on lines 8-16 of column 8. Such means are known by competent artisans to provide for safe and effective charging of rechargeable batteries. The incorporation of a temperature sensor into the device of Schulman to provide for safe and effective operation would have therefore been seen as an obvious modification by ordinarily skilled artisans.

7. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schulman (Pat. No. 3,942,535) in view of Nordling (Pat. No. 4,441,498).

Concerning claims 13 and 14, Schulman does not explicitly refer to the use of a keyboard with keys to start and stop the recharging process. Nordling discusses the use of this common data entry peripheral with "start" and "stop" keys on lines 32-39 of col. 9. Obviously anyone desiring to enter information into a system would turn to the ubiquitous keyboard. Nonetheless, the function of the keyboard and concomitant start and stop keys is identical to that of switch 41 shown in Fig. 6. To simply replace one type of switch for another to accomplish the same function would have been considered a matter of design and blatantly obvious by any ordinarily skilled artisans.

8. Claims 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schulman (Pat. No. 3,942,535).

The various medical devices mentioned in claims 16 and 18 are clearly indistinct species. Those of ordinary skill in the art would have seen the teachings of Schulman to apply to any implantable medical device capable of receiving externally generated energy. The applicants are

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certainly not the first to realize that implantable medical devices may be powered by external sources, and give no criticality as to the particular type of system used in conjunction with the invention.

*Allowable Subject Matter*

9. Claims 6-9 and 11, as understood, would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112 set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.


*Conclusion*

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ken Schaetzle whose telephone number is (703) 308-2211.



K.S.  
June 22, 1997



WILLIAM E. KAMM  
PRIMARY EXAMINER  
ART UNIT 335

